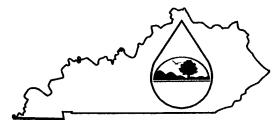
KPDES FORM HQAA



Kentucky Pollutant Discharge Elimination System (KPDES)

High Quality Water Alternative Analysis

The Antidegradation Implementation Procedures outlined in 401 KAR 5:030, Section 1(3)(b)5 allows an applicant who does not accept the effluent limitations required by subparagraphs 2 and 3 of 5:030, Section 1(2)(b) to demonstrate to the satisfaction of the Environmental and Public Protection Cabinet that no technologically or economically feasible alternatives exist and that allowing lower water quality is necessary to accommodate important economic or social development in the area in which the water is located. The approval of a POTW's regional facility plan pursuant to 401 KRS 5:006 shall demonstrate compliance with the alternatives analysis and socioeconomic demonstration for a regional facility. This demonstration shall also include this completed form and copies of any engineering reports, economic feasibility studies, or other supporting documentation

L. Permi list						
Facility Name:	Dixie	e Fuel Company, LLC.	KPDES NO.:	Pending DNR # 848-0267		
Address:	1	Box 269, General Delivery US 421 S	THANKIN THE PROPERTY OF THE PR			
City, State, Z Code:	Grays Knob, KY 40829 Grays Knob, KY 40829 Receiving Water Name: Turner Creek Yocum Creek		Tribut	ary of		
II. Afternat	ives Au	niyais				
Has discharge to other treatment works been investigated? (If yes, then indicate which treatment works were considered and the reasons why that discharge to these works is not feasible.) See Attachment				Yes 🖂	No	
 Have other discharge locations been evaluated? (If yes, then indicate what other discharge locations have been evaluated and the reasons why these locations are not feasible.) See Attachment 			<u>Yes</u>	<u>No</u>		

Item 1 Continued.

The proposed permit area was inspected for existing treatment works, sediment ponds and disturbed areas. No existing sediment ponds were found. Seventeen on bench - up-land sediment ponds are proposed for use under this permit application. They are proposed to be built on bench and out of all streams. Also proposed are two in stream ponds. These ponds were located in areas that were previously disturbed by pre-law mining and logging.

Sediment ponds are proposed to control drainage from rainfall events at this small operation site. We will call this option 1. It is estimated that the sediment ponds will cost approximately \$5,000 to build and another \$5,000 dollars to maintain and sample throughout there life. The cost for pond removal is estimated at approximately \$4,000 per pond. This total cost would then be approximately 14,000 dollars per pond. Since there are nineteen ponds proposed the total cost for all ponds proposed would be \$266,000.

As stated the proposed permit area was inspected for existing treatment works – no existing sediment ponds were found in the vicinity of this area. The closest wastewater treatment plant was also considered and was found to be located in Evarts Kentucky. This treatment facility is approximately 11.6 miles from the proposed permit area. The investigation of this option 2 revealed that 61,248' of pipeline would have to be installed to transport the discharge to this facility. This water transport piping would have to be buried to prevent freezing. So it is estimated that a minimum of an 8' wide disturbance would be created to bury this piping. This disturbance would then be:

 $8' \times 61,248' = 489,948 \text{ sq.ft.}$ or 11.2 acres. The installation process would cross a minimum of 9 blue line streams, which would also create multiple drainage problems that would have to be permitted (the pipe would have to be buried through these stream areas to

Item 1 Continued.

prevent freezing) Also the cost of this alternative was also investigated. Piping installed to a sufficient size to transport the drainage is estimated to cost installed, with all right-of-ways, supplies and construction, a minimum of \$50.00 per foot. This would be a cost of over 3 million dollars to run the 61,248 feet of pipe needed (\$50 per ft. x 61,248 ft. = 3,062,400). This piping would also have to be removed at the completion of underground mining. The cost to do this would be a minimum of \$20 dollars per foot plus inflation and would result in an additional \$1,224,960. The wastewater treatment plant would also have to install sediment-settling ponds to handle this discharge. This cost would also be added to this option. So this option would result in a cost of over \$4,000,000 and would disturb 11.2 acres plus stream areas. The entire permit area proposed is only 77.91 acres.

Other options such as tanks, tankers and channeling were also investigated. The use of tankers on the small roads in this area would create additional traffic hazards for the local community and unneeded additional exhaust pollution. Tankers of sufficient size to transport this discharge over the 11.6 miles to the local treatment works would cost approximately 100,000 dollars each, fuel for these trucks would depend upon the amount of rainfall received but it is estimated that each one would cost (At Current Fuel prices) 50,000 dollars per year in fuel if used throughout the year. If 3 tankers were used, this would be a cost of 150,000 dollars per year. Drivers for these tankers would cost approximately \$ 50,000 per year and for three tankers this would be \$150,000. The total cost for this option would be (9.5 years + 2 years for revegetation) * (\$300,000 per year for fuel-drivers) + \$ 300,000 initially for tankers this cost would be \$ 3,750,000. This option would also be dependent upon smooth traffic flow with out any interruptions. If you have driven these roads you know that continuous smooth traffic flow is not possible due to

Item 1 Continued.

accidents, road construction and many other factors. This would mean that drainage would have to be contained by tanks or with the design of a holding pond of sufficient size that it would not discharge during a 25-year storm. This size storm would deposit 5.1 inches of rain on this area in 24 hours. This pond is further sized under Item 3.

Item 2 Continued

Alternative pond locations were considered, but were eliminated due to topography, soil conditions or were in areas that would create more environmental impact. As shown on the attached MRP of the proposed operation, the ponds were designed as close to the proposed permitted area, yielding the least possible environmental impact and discharge.

Alternative discharge locations were examined in two (2) ways. First they were examined by moving the mine area. As shown on the pictures previously submitted, the mine area and discharge locations were chosen so a pre-law mined area with an existing highwall and benches could be mined and could be reclaimed when mining is completed. The area with the least possible drainage and discharge was chosen. If this entire mine site were moved into the hollows on this property the drainage and discharge would be greater. Also if we move it off this pre-law disturbed area, an undisturbed area would be disturbed and exist in addition to this pre-law mined area, creating more disturbed area, discharge in this watershed. All mining areas located on this property would result in discharge to Yocum Creek of the Clover Fork of the Cumberland River.

The possibility of pumping the discharge from this area to other discharge locations over the mountains to the north or south was also investigated. As stated in item 1 the cost for pipe installation and removal would be \$70.00 per foot. Pumping Stations would also have to be installed at intervals of elevation difference to accomplish this option. These would cost approximately \$150,000 dollars each. The disturbance for access roads and to bury this line would still be in this watershed and would increase the disturbance proposed for this small mine site. The additional disturbance would be $(15,000^\circ \text{ x } 8^\circ\text{-line}) + (15000^\circ \text{ x } 12^\circ\text{-road}) = 300,000 \text{ sq., ft.} = 6.89 \text{ acres.}$ The cost for this option would be $15,000^\circ \text{ x } \$70.00 = 1,050,000 \text{ dollars plus the cost of three pumping stations <math>(450,000 \text{ dollars}) = a \text{ total of } 1,500,000 \text{ dollars.}$ This does not included any treatment options for the water pumped. The current discharge locations are tributaries to the

Item 2 Continued

Cloverfork of the Cumberland River. If these points were moved all discharge points would still lead to the Cumberland River.

H.	Alternatives Analysis - continued		
3.	Has water reuse or recycle been investigated as an alterative to discharge? (If yes, then provide the reasons why it is not a feasible alternative	<u>Yes</u>	No
	See Attachment		
		Yes	No
4.	Have alternative process or treatment options been evaluated? (If yes, then indicate what process or treatment options have been evaluated and provide the reasons they were not feasible.)		\boxtimes
	See Attachment		

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Item 3 Continued

Some of the water in the sediment ponds will be used for fugitive dust control. However, during storm events more water will be generated, necessitating discharge. There are no other facilities on site (such as a preparation plant) that will require a raw water source. On a dry day dust suppression would use only about 15,000 gallons. Also during reclamation and hydro seediing 10,000 gallons of water will be used per day. But since this is only a small mining site of only 173.51 acres this will only be needed for four to five weeks. The mining area drainage and pond locations were designed to disturb the smallest watershed possible. With this design the pond will only discharge during rainfall events of sufficient size to saturate the small drainage area, and fill the pond beyond the discharge point. This area is pre-law disturbed but with no existing sediment control.

The peak discharge from the largest watershed permitted would be 199.99 cubic feet per second for a 10 year 24 hour storm. In order to recycle this water and because we cannot control mother nature, tanks of sufficient size would have to be installed to hold this water over week ends or other times when dust control (our only need for recycling storm water) was not necessary. The amount of water to be held would then be 427.39 cubic feet per second X 60 seconds per minute X 60 minutes per hour X 24 hours for one day = 36,926,496 cubic feet per day. This would then be 36,926,496 cubic feet of water X 7.48 gallons per cubic feet = 276,210,190 gallons for one day and one 10 year – 24 hour storm event. So most water tanks (or if stored in septic tanks) are 1,000 gallons. It would take 276,210,190 gallons / 1000 gallons per tank = 276,210 tanks per storm day. At a cost of purchasing and installing each tank of \$500.00 per tank this cost would be 276,210 X \$500 = \$138,105,000 dollars. This would only be the cost of storing the water additional cost would be incurred when pumping this water out to use for dust control. And if these men were on vacation during a rainy week then this

Item 3 Continued

option would have to be increased for this situation. This same cost would apply to septic tanks if used for subsurface disposal along with the additional cost of drain fields and drain field installation. However if a heavy rain comes at a time when additional rain (runoff) is currently stored (worst case) this sizing would have to be increased. A pond constructed to hold this one day storm without discharge, would have to hold 36,926,496 cubic feet / 43,560 square feet per acre = 847.72 acre feet (An MSHA – High Hazard Impoundment). This would also disturb additional area: 36,926,496 cu.ft. / 20 ft deep = 1,846,325 sq.ft = 42.39 acres of additional disturbance. The cost for the engineering design (\$200,000), construction (\$3,000,000), maintenance (\$750,000) & reclamation (\$1,000,000) would come to approximately \$4,950,000.

Item 4 Continued

The proposed mining operation falls under 405 KAR 1:200, Section 1(2) which precludes any type of treatment other than sediment ponds for disturbed areas greater than 1 acre, 405 KAR 16:060, Section 2 & 405 KAR 16:070. However as shown previously alternative treatment or discharge to alternative treatment has been investigated. Straw bales and silt fences were also investigated but these methods are for very small areas and do not control sediment as effectively as settling ponds. However these will be used as needed in addition to the sediment pond proposed.

Alternate processes and treatment have previously been discussed but this attachment will deal with additional ones so all known options are evaluated. First we will consider pumping this discharge into abandoned mines. This process is extremely expensive and requires approval from MSHA and the EPA. The underground mines in this area that have the capacity to store water are currently full to their storage point. Additional pumping of water into any mine will simply displace water and still create a discharge. Secondly applying additional water pressure to old mines that were mined with out leaving an outcrop barrier would be hazardous and would create a potential of a mine blowout. Another option would be to inject the discharge into subsurface areas that do not have underground mines. This option is not valid for this area because mining has occurred in all seams from the Harlan Seam up (All seams above drainage) to and including the Highsplint coal seam in and around this area for miles. For this reason the same factors and costs as discussed for alternate discharge points would apply to this analysis. Water would have to be pumped for miles to a suitable location. In addition to the collection and pumping cost, many additional costs would be added. These included Subsurface investigation, Percolation

Item 4 Continued

testing, Installation of ground water well networks, Determination of depth to ground water and seasonal variations, Ground water analysis to evaluate the response of the water table to hydraulic loading beneath absorption fields, and Assessments of ground water quality and potential impacts from subsurface wastewater disposal. The construction of a wastewater treatment plant was also evaluated. The cost of plant construction would be well over 2,000,000 dollars. If a plant were constructed sediment ponds would be also be required to be built to control the discharge. Plant operators, pumping and dismantling would also add additional costs. A plant operator over a 5 year period would cost 40,000 dollars per year x 5 years = \$ 200,000. Construction of other sediment control facilities would also not meet the regulations for our mining permit as issued by the Department for Natural Resources.

H.	Alternatives Audiyas - continued		
5.	Have on-site or subsurface disposal options been evaluated? (If yes, then indicate the reasons they were not feasible.) See Attachment	Yes	No
6.	Have any other alternatives to lowering water quality been evaluated? (If yes, then describe those alternatives evaluated and provide the reasons why these alternatives were not feasible.) See Attachment	Yes 🖂	No

Item 5 Continued

The amount of surface runoff can not be disposed of on site due to soil limitations and steep slopes, the surrounding area will be saturated with rain during a peak runoff period. The stress relief fracture system in this area transmits water through the open fractures and discharges it at the near surface fractures. So if this water were pumped underground we would only be changing the discharge point and also not allow settling time for the treatment of the discharge.

Subsurface or on site options are limited to pumping to abandoned underground mines or injecting water into underground absorption fields. First we will consider pumping this discharge into abandoned mines. This process is extremely expensive and requires approval from MSHA and the EPA. The underground mines in this area that have the capacity to store water are currently full to their storage point. Additional pumping of water into any mine will simply displace water and still create a discharge. Secondly applying additional water pressure to old mines that were mined with out leaving an outcrop barrier would be hazardous and would create a potential of a mine blowout. Another option would be to inject the discharge into subsurface areas that do not have underground mines. This option is not valid for this area because mining has occurred in all seams from the Harlan Seam up to and including the Highsplint coal seam in and around this area for miles. For this reason the same factors and costs as discussed for alternate discharge points would apply to this analysis (a cost of over \$4,000,000 to install piping and pumping stations). Water would have to be pumped for miles to a suitable location. In addition to the collection and pumping cost, many additional costs would be added. These included Subsurface investigation, Percolation testing, Installation of ground water well networks, Determination of depth to ground water

Item 5 Continued

and seasonal variations, Ground water analysis to evaluate the response of the water table to hydraulic loading beneath absorption fields, and Assessments of ground water quality and potential impacts from subsurface wastewater disposal.

The installation of a sanitary septic system (septic tanks) was previously evaluated with the cost shown. Area for the drain fields required for each tank (1 acre each) could also not be located on the steep, mountainous area surrounding this mine site. The sediment collected in this system would also not decompose and eventually stop up the system – more disturbed drainage area would then be created by digging up the tanks and drain fields (far more than the mine site disturbs). The possibility of drilling injection wells was also evaluated. In addition to the cost no suitable locations exist within a reasonable distance from this site. All evaluated options would not be adequate over the long-term. The stormwater must be discharged from the project site.

Item 6 Continued

The proposed mining area has existing mining and logging disturbance. The entire mining area and facilities proposed were pre-law disturbed. Also the entire watershed has existing logging disturbance. The mining and reclamation plan proposed under this application would correct many existing factors that have lowered water quality at this site. The previously disturbed area is not currently controled by a sediment structure. The active mining area with sediment control (dugout ponds) will discharge a better quality water than the pre-law mined area as it exists currently, according to the SEDCAD model for both conditions. The current pre-law disturbed area and existing highwalls have no sediment control. The plans as proposed under this application would correct many existing problems in this area and bring the surface areas up to current reclamation standards. Seventeen of the nineteen sediment ponds proposed were designed to be out of all streams, and the current eroding road will be upgraded with drainage controls to prevent the large scale erosion currently occuring. As permitted - the storm water will be maintained in a sediment pond prior to discharge. This will allow settling to occur and this will minimize (based on current regulations) the lowering of water quality. As previously discussed - alternatives for no discharge were evaluated. These alternatives are piping, trucking, septic systems, tanks for recycling, building MSHA class impoundment to hold all discharge, pumping into abandoned mines, injection wells, and etc. All alternatives and costs are previously listed. The other alternative would be not mining this area. This alternative would create lost jobs at this site and lost related goods and services jobs, lost economic development, lost tax revenues, lost health plans, and etc.

Another alternative would be to accept the more stringent limits. This would cause the iron requirement alone to go from 1.0 to 0.50 mg/l. To maintain these limits a continuous addition of soda ash and lime would have to be dispensed for treatment. Accordingly to a test run in ADMtreat 4.0 (this program can be obtained and downloaded at http://amd.osmre.gov), to maintain these limits would cost approximately \$ 700,000 more than the current cost for the iron limit alone for one pond. Withstanding the fact that the lowering of limits wants to be avoided, the cost is quite steep per charge and becomes a deterrent to the mining operation.

Ш	. Sedo-concent Degrand tradion
1.	State the positive and beneficial effects of this facility on the existing environment or a public health problem. See Attachment
2.	Describe this facility's effect on the employment of the area See Attachment
3.	Describe how this facility will increase or avoid the decrease of area employment. See Attachment
4.	Describe the industrial or commercial benefits to the community, including the creation of jobs, the raising of additional revenues, the creation of new or additional tax bases. See Attachment
5.	Describe any other economic or social benefits to the community. See Attachment

Item 1 Continued

The proposed mining area has existing pre-law mining and logging disturbance. The mining and reclamation plan proposed under this application would correct many existing factors that have lowered water quality at this site and allow the installation of sediment control (dug-out sediment ponds) until the mining is complete and the area is reclaimed and revegetated. The previously disturbed area is not currently controlled by sediment structures. The plans as proposed under this application would correct many existing problems in this area and bring the surface areas up to current reclamation standards. The permit area was designed to be high on the mountain with the least possible watershed above it, and the current eroding road will be upgraded with drainage controls to prevent the large scale erosion currently occuring. Alternate sediment control, on site disposal, and recycling were all considered and will be employed in addition to the sediment pond. However the small amount of water recycled for dust control and road compaction will not be enough to prevent the sediment pond from discharging during a major percipation event.

This operation will allow employees to have health insurance. Recovery of the coal (1,000,000 tons) will increase severance tax revenues (by 350,000). This revenue can be used by Harlan county (approx. 15% returned to county = 52,500 dollars) for environmental protection such as sewage disposal, solid waste disposal, and land reclamation, which will benefit the environment of Harlan County.

Item 2 Continued

This facility will allow for the employment of approximately 20 people when started. Once started and as the advancement will allow, a second shift an a highwall/auger miner crew will be added. This will create approximately 20 new jobs. In addition to the these surface mining jobs there will also be approximately the same number of jobs created and maintained in related goods and services. After the full crew is added the total number of jobs for Harlan County will be 40. Harlan County recorded a 9.6 percent unemployment rate for January, 2009, an increase of 1.6 percent from December. This rate is above the state average for January, 2009. Kentucky labor force estimates noted that Harlan County has civilian labor force of 9809 with 8866 people employed and 943 unemployed. The current unemployment rate of Harlan County is 943(unemployed)/9809(labor force) = 9.6% Without this operation this becomes 963/9809 = 9.8% With this operation and after the highwall miner crew is added this becomes 923/9809 = 9.4%. The jobs created will also be higher paying jobs. A surface coal miner in Harlan county earns an average wage of \$18 per hour which is 100% more than most all other non mine related jobs in the county. With benefits such as life insurance and health insurance.

Item 3 Continued

As shown above with out this operation and with the current statistics the employment will rise to 9.8%. With this operation and after a highwall miner is added the current rate of 9.6% will fall to 9.4%. This mine will directly employ approximately 20 people at the start of operations. After the second shift and highwall/auger miner is added 20 additional people will be employed this will create of approximately 20 new jobs. Non-issuance of this permit will result in the layoff of these employees. In addition to direct jobs created, their will also be jobs in related goods and services that will also be maintained. This operation represents approximately 3 percent of all surface mining jobs in the county. These jobs are worth over 60,000 dollars per year to each employee with benefits adding up to approximately 60% of wages (\$36,000) for a total of \$96,000 per employee year. The life of this operation will be approximately 5 years. This operation will provide the following employee wages and benefits over its life: 5 years X 40 employees X \$96,000 = \$19,200,000

The local, state severance, and federal taxes will also help with programs for employment training. Harlan county is currently turning mined lands into a future for this area by developing recreations parks for rock crawlers and ATVs. Some of the tax money returned to the county will provide for continuing these type projects which will aid in employment opportunities after the coal and mining jobs have been exhausted in this area.

Item 4 Continued

This mine will directly employ approximately 40 people and indirectly affect another 40 due to related goods and services. This operation will provide a variety of both state and local tax revenues and increase the property value of the land being mined. Property values increase when land is active. Therefore, when mining is being conducted, the land has an increased value, which increases property taxes paid. Upon final reclamation of this area, this site will again be productive and indirectly affect employment for this area because it proposes to create additional wildlife habitat. This creation of a long term post mining land use of wildlife habitat will be a great improvement to the existing land condition while reclaiming the previous logging and pre-law mining disturbance and highwalls in the This operation has been permitted to extract approximately mining area proposed. 1,000,000 tons of coal. Recovering this coal should produce severance tax in the amount of \$350,000. Approximately 15 percent of this tax should be returned to Harlan county. This would be \$52,500 to provide funds to establish alternative industries, as well as provide for public safety, environmental protection, public transportation, vocational training, health and recreational facilities, social services, industrial/economic development, and workforce traininge. Harlan county has also used those funds to improve law enforcement and battle the drug problems in this area, for fire protection, ambulance services, libraries. educational facilities, and public parks. This money will be used by the county to aid public utilities and services (drinking water, sewage, road improvement, ect), establish new or expanded industry opertunities, and other benefits to the community. When coal land is active unmined minerals and other taxes increase which creates an

Item 4 Continued Page 2

additional new tax base. The local economy will enjoy employee benefits and wages of 19,200,000 dollars during the next 5 years. This prolonged addition to the economy will allow for continued growth and time for additional industry to be started and developed for continued employment opportunities in this area.

Item 5 Continued

This mine will directly employ approximately 40 people and indirectly affect another 40 due to related goods and services. This operation will provide a variety of both state and local tax revenues and increase the property value of the land being mined. Upon final reclamation of this area, this site will again be productive and indirectly affect employment for this area because it proposes to create additional wildlife habitat. This creation of a long term post mining land use of wildlife habitat will be a great improvement to the existing land condition while reclaiming the previous logging and pre-law mining disturbance. The coal mined will be accessed sererance tax which will be returned to the community as previously discussed. This money will be used by the county to aid public utilities and services (drinking water, sewage, road improvement, ect), establish new or expanded industry opportunities, and other benefits to the community. When coal land is active unmined minerals and other taxes increase which creates an additional new tax base. The local economy will enjoy employee benefits and wages of 19,200,000 dollars during the next 5 years. This prolonged addition to the economy will allow for continued growth and time for additional industry to be started and developed for continued employment opportunities in this area. This operation will also require supporting jobs as well as mining jobs. Equipment sales and repair, mining and engineering consultants, fuel and transportation providers and many others. This operation also provides wages which allow our employees to support businesses not related to mining in Harlan and the surrounding counties. This helps employ people in non-mining jobs. The increased property tax payments will benefit area schools so they can have better equipment and teachers. After mining is completed the reclaimed area can support many outdoor recreational activities.

III. Socioeconomie Bemonstration – continued		
	Yes	No No
6. Will this project be likely to change median household income in the county?	\boxtimes	
7. Will this project likely change the market value of taxable property in the county?	\boxtimes	
8. Will this project increase or decrease revenues in the county?	\boxtimes	
9. Will any public buildings be affected by this system?		\boxtimes
10. How many households will be impacted by this project? See Attachment 11. How will those households be impacted?		
See Attachment	,	
12. Does this project replace any other methods of sewage treatment to existing faciliti (if so describe how)	ies? <u>Yes</u>	$ \frac{\mathbf{No}}{\boxtimes} $
(if so deserted now)		
See Attachment		
	Vac	No
13. Does this project treat any existing sources of pollution more effectively? (If so describe how.)	<u>Yes</u> ⊠	
See Attachment		
See Attachment		

DEP Form

Item 10 Continued

As the wages and benefits of the underground coal miner are far above all other employment opportunities in this area the jobs saved and created will increase the wages of the 40 employees and affect their houshold by increasing wages approximately 100 percent over other alternatives in this area. Also the benefits offered will allow for these 40 household to have medical insurance and other benefits that other jobs in Harlan County do not offer. The employees will be impacted positively with a more secure place of employment and a higher than average Harlan county wage. These earnings will help these households to maintain or enhance their current economic status. As approximately one half of these jobs will be new jobs, twenty current unemployed miners will have a place to work. Households of local businesses will also benefit from the spending of these employees. Related goods and services employees will benefit from this operation. Total households affected = 40 direct jobs + 40 related services jobs + 80 area business jobs = 160 households will benefit.

Item 11 Continued

By increasing all households with one employed person to twice the income as most all other jobs in Harlan County. By benefits including health insurance for there families. The benefit packages offered amount to a minimum of 60% of wages. These households would not have medical insurance if not for these jobs. The local businesses will benefit from the increased spending power of these employees. Jobs in related goods and services will benefit in increased sales and employment.

Item 12 Continued

This project will not include any sewage treatment facilities. There is no existing sewage, wastewater discharges that this project could replace. The residents of this local area are currently not on a municipal sewage treatment facility. Taxes generated by this operation could provide revenue in the form of severance taxes, which could be used by local and state government to help provide these services for this area.

Item 13 Continued

This site is currently disturbed without drainage control in place to correct or help correct the current sediment being discharged. With the installation of the sediment ponds this site will have control and treatment for the existing sources of pollution. As this site was pre-law disturbed sediment control from this prior mining will be improved. This operation and the sediment pond built will also provide sediment control for the logging that has taken place in the permit area. This area of pre-law mine disturbed and logged area will be controlled by the sediment pond installed.

Ш	. Socioec	paomic Demonstration — continued			
14.	Does this pro	ject eliminate any other sources of discharge or pollutants? e how.)		es	No
	See Attachm	ent			
15.	How will the area?	e increase in production levels positively affect the socioeconomic condition of the	e		
	See Attachm	ent			
16.	How will the area?	increase in operational efficiency positively affect the socioeconomic condition of	of the		
	See Attachm	ent			
1V my	Certification or	on: I certify under penalty of law that this document and all attachments we supervision in accordance with a system designed to assure that qualified p	ere prepar personnel	ed un prope	der erly
gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the					
system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant					
penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.					
	lame and Title:	Joseph T. Bennett, Managing Member Telephone No.:	6) 573 -	2233	
s	ignature:	Date: 4	1/8/0	9	
			6		

Item 14 Continued

This operation proposes to reclaim previously disturbed area, install drainage controls in existing roads and reclaim previously disturbed areas. After reclamation the current (pre-mining) higher rates of effluent contamination will be greatly reduced. During mining and as stated before – the sediment pond will treat this discharge more effectively.

When completed this project reclaims the existing pre-law mining disturbance and brings this area up to current reclamation standards. This will include the removal of old garbage left behind when this area was pre-law mined and logged. Instead of viewing an existing bench and highwall in some areas of the permit with little vegetation the local residents will view a reclaimed area with vegetation and trees. This area currently has no soil in place on the existing highwall and drainage is flowing down this highwall area and is discharged. After reclamation this area will again be absorbent and any rainfall events will be retained in the soil until saturated to promote tree and vegetative cover. Drain patterns will be established to prevent erosion. Once this is accomplished and the site is completely revegetated the sediment pond will no longer be necessary and will also be removed with complete reclamation and revegetation. This will also benefit all residents and people passing, due to the improvement of the viewsheds of the area.

Item 15 Continued

The increase in production levels will be the result of surface mining and highwall mining the Highsplint coal seams and constructing the sediment ponds in this area. This operation proposes to mine approximately 1,000,000 tons of low sulfur coal, which is needed to continue the electrical generation of our area and the surrounding areas. This will generate high paying jobs, generate coal severance tax, and additional employment opportunities in the Harlan County area. Also the increase in production levels will be accomplished by adding a highwall miner as the initial advancement will allow. This will mean twice the employment opportunities will be created by the disturbance in this watershed. As previously described these are high paying jobs with benefit packages. This operation will generate additional tax revenue for this area and county as well as state programs. Will allow for related goods and services jobs to be maintained and created. Will allow for businesses in the local area to enjoy additional revenue from these employees and related goods and services employees. All of these additional wages and taxes will aid in the economic development of this area as well as increase benefits to all residents in the form of public services improved by increased tax revenues.

Item 16 Continued

As stated before this operation will also employ underground highwall mining techniques and this will allow for mining a larger area while only disturbing a small contour mining area, the sediment ponds proposed are including in the mining area and this will lessen the disturbance. The effect of this will prolong jobs and tax revenues while disturbing only 173.51 acres. While highwall mining 3 seams with and underground area of 74.02 acres. Three (3) coal seams at 74.02 acres each equals an underground area of 222.06. The operational efficiency of mining 133.62 surface acres of three seams (= 400.86 acres of coal seam area) and highwall mining these three seams is as follows. Surface disturbance = 173.51 acres. Surface mining seam area = 400.86 acres. Highwall (Underground) Mining = 222.06 seam acres. Disturbance to Mining seam area is 173.51 acres of disturbance and yielding 400.86+222.06 acres of seam area. This operation area ratio will be 622.92 operating seam acres for only 173.51 acre of disturbance. Which is 3.59 seam acres for each 1-acre of disturbance. This operational efficiency is greater than many other industries.

The following examples are given:

Agriculture - One acre of disturbance for one operational acre.

Most all other industries are no more than one to two stories high, this would only be:

- One acre of disturbance for two acres of operational area.

If a factory was built on and disturbed one acre of land, then to achieve the same disturbance to operational area – it would have to be 3.59 stories high.

If this operation mines 112 seam acres per year then jobs created will last = 622.92 seam acres/112 seam acres per year = Approx. 5 years. This would mean 40+ jobs at the mine and many more in related goods and services would last 5 years for this small investment in a pre-law disturbed area.

Item 16 Continued

This increase in operational efficiency will provide long-term production levels leading to increase employment opportunities in the area, maintenance of existing employment, development and maintenance of indirect jobs and increase in the amount of severance tax and personal tax the area receives.

This operation also proposes to reclaim pre-law disturbed area and establish vegetation with trees to create a diverse habitat for wildlife. This will eliminate the existing environmentally damaged area and enhance the viewshed. This operation will also provide needed coal to help eliminate our dependence on foreign energy supplies, and help with our nation's energy crisis.